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# Health Disparities among Lesbian, Gay, Bisexual, and Transgender Population in Ghana

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***Abstract***

*Lesbian, gay, bisexual and transgender population experience myriads of health disparities. The purpose of this study was to examine the health disparities among the LGBT population in Ghana, as no study has been specifically conducted in Ghana to examine such area of study. The study specifically sought to determine the mental, physical and the behavioral health disparities among the LGBTs in Ghana. A total of 494 self-identified LGBTs, recruited via non-probability sampling technique of snow-ball participated in the study. The survey included four categories of survey items: demographic information, mental health behavioral health, and the physical health conditions of the LGBTs. The findings of the study indicated that the LGBT population in Ghana experience a number of health disparities, ranging from behavioral, physical and mental health. The results from the one-way analysis of variance revealed that lesbian and gay population in Ghana experience mental, behavioral, and physical health conditions more than their bisexuals and transgender. It was found that lesbians and gay engage in excessive use of tobacco, over-use of alcohol, use of drugs, and engage in unprotected sex behaviours more than their bisexual and transgender counterparts ($p<.05$). The findings of the study also revealed that the lesbians and gays in Ghana have higher risks of cancer, being overweight or obese, and the risk of being diagnosed with stroke ($p<.05$). Based on the findings of the study, it is recommended that the mental behavioral and the physical health of the LGBTs in Ghana should be given the needed attention.*

***Keywords:*** *Health disparities; sexual orientation; lesbian; gay; stigmatization; Ghana*

## Introduction

Health disparities are differences in health between different groups of people. Lesbian, gay, bisexual and transgender (LGBT) people are found to experience a number of health disparities. LGBT people are at higher risk of certain conditions, have less access to health care, and have worse health outcomes. These disparities are seen in the areas of behavioral health, physical health, and access to care (Grant et. al, 2011). Behavioral health includes mental health, substance abuse, and addiction. LGBT people are at greater risk of suicide and suicidal thoughts, mood disorders and anxiety, eating disorders, alcohol, tobacco, and substance abuse (Grant et. al, 2011). In terms of physical health, LGBT

people are at greater risk for certain conditions, diseases, and infections. LGBT people are more likely to rate their health as poor and report more chronic conditions (Lick, Durso, & Johnson, 2013). Lesbian and bisexual women have higher rates of breast cancer, and transgender men and women are at greater risk (Dibble, Roberts and Nussey, 2004). LGBT people have higher rates of HPV infection (National LGBT Cancer Network, 2013). Lesbian and bisexual women may have a higher risk of cervical cancer, and gay and bisexual men may have a higher risk of anal cancer (National LGBT Cancer Network, 2013). LGBT people are more likely to be obese (Centers for Disease Control and Prevention, 2013). Gay and bisexual men are more likely to have HIV/AIDS (Centers for Disease Control and Prevention, 2013). Access to care refers to the fact that LGBT people have less access to the health care they need. They are less likely to have health insurance, less likely to fill prescriptions, more likely to use the emergency room or delay getting care, and more likely to be refused health care services and be harassed by health care providers (Grant et. al, 2011).

One of the major reasons that has been attributed to LGBT's health care disparities has to

do with the social stigma and the discrimination and abuses lesbian, gay, bisexual, or transgender continue to experience on daily basis (Krehely, 2009). Because of this stigma, LGBT people face frequent harassment and discrimination, leading to negative mental health outcomes and high rates of risk-taking that increase the likelihood of physical harm (Krehely, 2009). Meanwhile, laws criminalizing LGBTs sexual activities and even being an LGBT, itself has been the main factor of the discrimination and abuses of LGBTs leading to their experiencing of these disparities in health care systems (Amnesty International, 2001). Laws criminalizing LGBT unfortunately exist on all continents, albeit in different forms (Human Right Watch, 2008).

LGBT individuals, like their heterosexual individuals, have a right to healthcare. However, discrimination and abuses faced by the LGBTs have restricted their access to healthcare. For instance, in the United States of America, in 2010, more than half of LGBT people reported being discriminated against by a health care provider and more than 25 percent of transgender individuals reported being refused medical care outright. Health care services tailored to the LGBT community are absent in Africa. As a result of the discrimination and abuses faced by LGBT individuals, they face the higher risk of depression, anxiety, obsessive-compulsive and phobic disorders, suicidality, self-harm, and substance use among LGBT people (Diamant and Wold, 2003; Cochran and Mays, 2007; Boyd et al., 2010). There is a growing body of research that supports the theory that negative experiences resulting from LGBT stigma can lead to chronic stress that contributes to emotional distress among LGBT persons, which could lead to mental health problems (Bontempo and D'Augelli 2002; Clements-Nolle et al. 2006; Murdock and Bolch 2005).

Ghana has a bad record when it comes to the treatment of lesbian, gay, bisexual and transgender (LGBT) people. LGBT people are very frequently victims of physical violence and psychological abuse, extortion and discrimination in many different aspects of daily life (Human Right Watch, 2018; Quaye et al., 2015; Green et al., 2015). Many LGBT Ghanaians fear disclosing their sexual identity because of the stigma associated with homosexuality – the fear of violence perpetrated by family members and others in the community and homelessness (Human Right Watch, 2018; Quaye et al., 2015; Green et al., 2015). LGBT individuals in Ghana dare not disclose their sexuality in public (Frimpong, 2018; MacDarling, 2011; Ofori, 2014; Haruna, 2015; Essien and Aderinto, 2009; Dankwa, 2009; Allotey, 2015; Human Right Watch, 2018). The legal landscape and social climate for LGBT people in Ghana have contributed to a large extent the discrimination and the abuses faced by the LGBTs in Ghana (Human Right Watch, 2018). As a result of these discrimination and abuses, most of the LGBTs in Ghana have been found not to seek medical care at health facilities when they are sick, for fear that their identities will be disclosed to the general public (Human Right Watch, 2018). These marginalization and discrimination experienced by the LGBT people have contributed to barriers to the access of health and support services (Leonard, 2002; McNair, Anderson, Mitchell, 2003). These barriers are compounded by health care providers often lacking the appropriate knowledge and skills around LGBT health (Leonard, 2002). The experience of each individual member of the LGBT community varies widely depending on numerous potentially intersectional factors, including ability, age, sex, ethno-racial group, nationality, religion, socioeconomic status, geographical location, and other factors. However, what is common to the LGBTs is that experiences of individual and systemic oppression can often threaten their health and well-being.

Although a growing body of research has documented health disparities among LGBT people (Diamant & Wold, 2003; Dilley, Simmons, Boysun, Pizacani, & Stark, 2010, Chae & Ayala, 2010; Cochran, Mays, & Sullivan, 2003; Conron, Mimiaga, & Landers, 2010; Riggle, Rostosky, & Horne, 2010; Wallace, Cochran, Durazo, & Ford, 2011; Conron et al., 2010, Cochran, 2001; Rosenzweig *et al.*, 2011; Shin &Lukens, 2002; Fredriksen-Goldsen, Kim, & Barkan, 2012; Fredriksen-Goldsen, Kim, Barkan, Muraco, & Hoy-Ellis, 2013; Herbst et al., 2008; Schulden et al., 2008; Boehmer, Bowen, & Bauer, 2007; Case et al., 2004), findings from these studies are mixed. There is no absolute conclusion on the health disparities of LGBT population (Fredriksen-Goldsen, et al, 2014). On the other hand, many of these studies on health disparities among LGBT individuals have been conducted outside Ghana, creating a gap in literature on

health disparities among LGBT population in Ghana. To better address the needs of an increasingly diverse LGBT population in Ghana and to develop responsive interventions and public health policies, health disparities research is needed for this at-risk group. Examining to what extent sexual orientation is related to health disparities among LGBT population in Ghana is a first step toward developing a more comprehensive understanding of their health care needs. Hence, the purpose of this study is to examine the health disparities among the LGBT population in Ghana. Specifically, the study seeks to determine the mental health disparities among the LGBTs in Ghana, the physical and the behavioral health disparities among the LGBTs in Ghana.

## Materials and Methods

### Description of the site

Ghana is one of the countries on the African continent, found on the western part of the continent. Ghana sits on the Atlantic Ocean and shares borders with Togo, Cote d'Ivoire, and Burkina Faso. Formed from the merger of the British colony of the Gold Coast and the Togoland trust territory, Ghana in 1957 became the first sub-Saharan country in colonial Africa to gain its independence. Ghana's population of approximately 30 million (Worldometers, 2019) spans a variety of ethnic, linguistic and religious groups (Ghana Statistical Service [GSS], 2018). According to the 2010 census, 71.2% of the population are Christians, 17.6% are Muslim, and 5.2% practice traditional faiths (GSS, 2013). Over the past twenty years, Ghana has made major strides as far democracy under a multi-party system is concerned, with its independent judiciary winning public trust. Ghana is ranked among the top three countries in Africa for freedom of speech and press freedom, with strong broadcast media (World Bank, 2019). However, LGBT rights in Ghana are heavily suppressed. Physical and violent homophobic attacks against LGBT people are common, often encouraged by the media and religious and political leaders. Despite the Constitution guaranteeing a right to freedom of speech, of expression and of assembly to Ghanaian citizens, these fundamental rights are actively denied to LGBT people. Same-sex relationships are a misdemeanor punishable by up to three years in prison in Ghana. According to a recent Pew survey, 98 percent of Ghanaians feel that homosexuality is “morally unacceptable,” the highest percentage of any country surveyed (Pew Research, 2013). Anti-LGBT rhetoric is rampant from prominent Ghanaian politicians and LGBT citizens face societal discrimination and the threat of violent attack.

### Instruments

The study was carried out through the use of a questionnaire. The questionnaire consisted of three sections. The first section focused on the demographics of the participants - age, ethnicity, sexual orientation, region, geographical location, working status, educational level, ethnicity, religious affiliation, and educational attainment. The second section of the questionnaire elicited information on the physical and behavioral health of the LGBTs. The response format was based on a five-point Likert scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly Agree. The third section of the questionnaire measured the mental health conditions of the LGBTs. The mental health conditions of the LGBTs were measured using the Brief Symptom Inventory 18 (BSI-18) Scale. The BSI is the short version of the SCL-R-90 (Derogatis, 1993), for the assessment of psychological distress, especially in clinical practice. The Brief Symptom Inventory with 53 items was developed by Derogatis using a factor analysis and maintaining the scale structure with the reduced item number of the SCL-90-R. The BSI-18, which is the short version of BSI-53 contains only three six-item scales somatization (SOMA), anxiety (ANX), depression (DEPR), and the global Scale Global Severity Index (GSI). Responses range from 0 (not at all) to 3(nearly every day). Contrary to the SCL-90-R and the BSI-53, the BSI-18 scores are calculated by sum scores. The GSI therefore ranges between 0 – 72 and the three scales between 0 – 24. The application studies demonstrated that the BSI-18 is a suitable instrument for measuring psychological distress and comorbidities in patients with different mental and somatic illnesses (Adams, Boscarino, & Galea, 2006; Berman, Weems, & Stickle, 2006; Carlson, et al, 2004; Coley & Hernandez, 2006; Coultas D., Frederick, Barnett, Singh, Wludyka, 2005).

### Procedure

The participants of the study were recruited from the LGBT community all over Ghana. Non-probability sampling of Snowball sampling

technique was used to select the sample for the study. The snowball sampling technique was appropriate for the study due to the fact that the LGBT individuals are a hidden population in Ghana which makes it difficult to access them. However, because they know themselves, the individuals are closely connected. As a result, one participant is likely to know others who are LGBT that make them eligible for inclusion in the study. The only disadvantage of this sampling technique is that as the participants are not selected from a sampling frame, the sample is subject to bias. For example, an LGBT individual who have many friends who are also LGBT were more likely to be recruited into the sample than those who do not have many friends who are LGBT. The study used a sample of 500 LGBT individuals all over the country. A total of 500 questionnaires were therefore sent out to the participants of the study. Of the total of 500 questionnaires sent to the LGBT individuals, 494 were retrieved and were considered usable for the study. In all, a response rate of 98.8% was achieved for the study. According to Fincham (2008), response rates approximating 60% for most research should be the goal of researchers, and for survey research intended to represent all LGBT individuals in Ghana, a response rate of at least 90% is expected. This was however achieved in this study.

**Statistical methods used.**

Statistical analysis was performed using IBM SPSS Statistics version 20.0 (IBM, Armonk, NY) with a significance level of 0.05. General descriptive statistics characteristics of the participants were expressed as the mean ± standard deviation for continuous variables and as frequency (%) for categorical variables. Internal consistency reliability was analyzed by using Cronbach's alpha coefficient. Descriptive statistics – frequencies, percentages, mean and standard deviations were used to describe the participants' demographics, mental health as well as the physical and behavioral health conditions of the LGBTs. The inferential statistics of one-way Analysis of Variance (one-way ANOVA) was used to explore the health disparities among the LGBTs in Ghana.

Cronbach's alpha coefficient of 0.803 was obtained for the physical health conditions of the LGBTs, 0.81 was obtained for the behavioral health conditions of the LGBTs, and 0.894 was obtained for the mental health conditions (Somatization – 0.804; Depression – 0.862; Anxiety – 0.799) of the LGBTs. In general, Cronbach's alpha coefficients of at least 0.6 are thought to be indicative of good reliability (Lee, Yim and Kim, 2018). Hence, the questionnaire for the study was confirmed to exhibit internal consistency for all the items under consideration in this paper.

## Results

Table 1 presents the demographics of the participants of the study. Of the total 494 participants whose questionnaires were considered usable for the study, 73.5 % (n=363) were males, while 26.5 % (n=131) were females. On the other hand, of the total 494 participants, 14.1% (n=70) identified themselves as lesbians; 41.9% (n=208) identified themselves as gays; 43.5% (n=216) identified themselves as bisexuals; and .4% (n=2) identified themselves as transgender. The participants were from the 14 years and above, with 4.6% (n=23) between the ages of 14-19 years; 17.9% (n=89) between the ages of 20-24 years; 39.0% (n=194) between the ages of 25-29 years; 22.7% (n=113) between the ages of 30-34 years; and 15.7% were 35 years and above. Of the regional distribution of the participants, majority (19.8%) were from the Greater Accra Region; 14.3% (n=71) were from the Volta Region; 12.7% (n=63) were from the Ashanti Region; 12.1% were from the Central Region; and 11.9% were from the Eastern Region. Less than 10.0% were from the Northern (8.1%), Upper East (2.6%), Upper West (3.0%), and Western (7.3%) Regions. Regarding geographical location, majority of the participants (89.7%) were located in the urban areas, while 10.3% were found in the rural areas. About 49% of the participants declared themselves as working full-time, 17.6% reported as working part-time, while 19.5% of the participants declared themselves as unemployed. However, 2.4% of the declared themselves as retired workers, house-wife/house-husband, and self-employed, respectively, while 6.7% (n=33) reported as being students/pupils. Nearly 29% of the participants had completed senior high school, 31.9% had Technical/Vocational Training/Diploma, 15.9% had university undergraduate degree, and 5.5% had university post-graduate degree.

**Table 1.** Demographic profiles of the participants

| **Demographics** | **N** | **Frequency** |
|---|---|---|
| Gender | | |
| Male | 363 | 73.5% |
| Female | 131 | 26.5% |
| Sexual Orientation | | |
| Lesbian | 70 | 14.1% |
| Gay | 208 | 41.9% |
| Bisexual | 216 | 43.5% |
| Transgender | 2 | .4% |
| Age | | |
| 14-19 | 23 | 4.6% |
| 20-24 | 89 | 17.9% |
| 25-29 | 194 | 39.0% |
| 30-34 | 113 | 22.7% |
| 35-39 | 35 | 7.0% |
| 40-44 | 17 | 3.4% |
| 45-49 | 12 | 2.4% |
| 50 and above | 14 | 2.8% |
| Region | | |
| Ashanti | 63 | 12.7% |
| BA | 41 | 8.3% |
| Central | 60 | 12.1% |
| Eastern | 59 | 11.9% |
| Greater Accra | 98 | 19.8% |
| Northern | 40 | 8.1% |
| Upper East | 13 | 2.6% |
| Upper West | 15 | 3.0% |
| Volta | 71 | 14.3% |
| Western | 36 | 7.3% |
| Geographical Location | | |
| Urban | 399 | 89.7% |
| Rural | 46 | 10.3% |
| Working status | | |
| Working full-time | 241 | 48.9% |
| Working part-time | 87 | 17.6% |
| Unemployed | 96 | 19.5% |
| Retired | 12 | 2.4% |
| House-wife/husband | 12 | 2.4% |
| Student/Pupil | 33 | 6.7% |
| Self Employed | 12 | 2.4% |

| Educational Level | | |
|---|---|---|
| No formal school | 13 | 2.6% |
| Primary school | 23 | 4.7% |
| Junior High School | 46 | 9.3% |
| Senior High School | 140 | 28.5% |
| Technical/Vocational Training/Diploma | 157 | 31.9% |
| University Graduate | 78 | 15.9% |
| Post Graduate | 27 | 5.5% |
| MSLC | 8 | 1.6% |
| Ethnic group | | |
| Akan | 232 | 46.8% |
| Ga/Dangme | 103 | 20.8% |
| Ewe | 72 | 14.5% |
| Guan | 12 | 2.4% |
| Mole-Dagbani | 30 | 6.0% |
| Grusi | 13 | 2.6% |
| Gruma | 14 | 2.8% |
| Mande | 3 | .6% |
| Fante | 17 | 3.4% |

Meanwhile, 9.3% (n=46) had primary education, 1.6% (n=8) had middle school living certificate education, while 2.6% (n=13) had no formal education. With respect to ethnicity, 46.8 % (n= 232) considered themselves to be Akans, 20.8% (n=103) considered themselves to be Ga/Dangme, while 14.5% considered themselves to be Ewes. However, 2.4% (n=12) regarded themselves as Guans, 6.0 % (n=30) regarded themselves as Mole-Dagbani, 2.6 %(n=13) regarded themselves as Grusi, 2.8% (n=14) regarded themselves as Gruma, and 3.4% (n=17) regarded themselves as Fantes.

**Mental health disparities among LGBTS in ghana**

Table 2 shows the mean, standard deviation and the p-values of one–way ANOVA of the mental health disparities among the LGBTs in Ghana. As clearly noticed in the table the results from the one-way ANOVA shows that the bisexuals (M=1.3, SD=.79) and gays (M=1.0, SD=.70) were found to experience somatization several days than the lesbians (M=.90, SD=.60) and transgender group (M=.70, SD=.99). On the other hand, the bisexuals (M=1.2, SD=.72) and gays (M=1.0, SD=.75) on several days got depressed than the lesbians (M=.80, SD=.68) and transgender (M=.60, SD=.31). Meanwhile, the bisexuals (M = 1.3, SD = .89), gays (M = 1.1, SD = .89) and the lesbians (M = 1.2, SD = .70) were found to experience more anxiety than their transgender counterpart. The Global Severity Index (GSI) also indicated that the bisexuals (M = 1.3, SD = .72), gays (M = 1.0, SD = .67) and the lesbians (M = 1.0, SD = .50) for several days experienced mental disorders than their transgender counterparts.

**Behavioral health disparities among LGBTs in ghana**

Table 3 shows the mean, standard deviation and the p-values of one–way ANOVA of the behavioral health disparities among the LGBTs in Ghana. As clearly indicated in the table, lesbians (M=2.3, SD=1.15) and gays (M=1.8, SD=1.15) were found to engage in excessive use of tobacco or cigarette more than the bisexuals (M=1.58, SD=1.14) and the transgender (M=1.5, SD=.70). In terms of over-use of alcohol most of the time, lesbians (M=2.3, SD=1.13) and gays (M=1.8, SD=1.18) were found to over-use alcohol most of the time more than the bisexuals (M=1.56, SD=1.05). The lesbians and the gays were also found to use drugs, such as cocaine, heroin most of the time than their bisexual and transgender

counterpart, as indicated in Table 3. Although, overall, the LGBTs were found not to highly engage in unprotected sexual behaviours (M=2.8, SD=1.3), the findings of the study as indicate in Table 3 reveals that lesbians (M=3.4, SD=1.41) are more likely to engage in unprotected sex behaviours than gays (M=2.8, SD=1.32), bisexuals (M=2.54, SD=1.14), and transgender (M=2.0, SD=1.41).

### Physical health disparities among LGBTs in ghana

Table 4 shows the mean, standard deviation and the p-values of one–way ANOVA of the behavioral health disparities among the LGBTs in Ghana. As indicated in the Table 4, although majority of the LGBTs revealed that they had not been diagnosed with cancer (M=1.6, SD=1.0) contrary to research evidence that LGBTs have higher rates of cancer (Austin et al, 2013), the findings of the study revealed that the lesbians (M=1.7, SD=0.93), and the gays (M=1.6, SD=0.94) have higher risks of cancer than their bisexual (M=1.47, SD=1.01) counterpart. The LGBTs were also found to be less overweight or obese (M=1.6, SD=1.0) although research evidence has found that lesbian and bisexual women have higher rates of smoking, obesity, and nulliparity (Blosnich *et al.*, 2014). However, the findings of the study revealed that the lesbians (M=2.3, SD=1.05) were prone to being overweight or obese more than the gays (M=1.8, SD=.103), bisexuals (M=1.54, SD=1.05), and the transgender (M=1.5, SD=.71). The findings of the study as indicated in Table 4 revealed that, although not overall significant, the bisexuals (M=2.47, SD=1.08), were found to be prone to be diagnosed with HIV/AIDs more than the lesbians (M=2.4, SD=1.18), and the gays (M=2.4, SD=1.14). Meanwhile, the lesbians (M=2.1, SD=1.03) were found to be prone to the risk of stroke more than their gay (M=1.9, SD=1.10), and bisexual (M=1.50, SD=1.0) counter parts.

## Discussion

This study was to determine the mental, physical and the behavioral health disparities among the LGBTs in Ghana. The findings reveal significant health disparities among LGBT populations in Ghana, with both strengths and gaps across the continuum of health indicators examined. The results show of the study reveals that bisexuals and gays are found to experience somatization several days than the lesbians and transgender group. On the other hand, the bisexuals and gays on several days got depressed than the lesbians and transgender. Meanwhile, the bisexuals, gays and the lesbians were found to experience more anxiety than their transgender counterpart. These findings supports previous research findings on mental health of LGBT population, which reveals that people engaging in same-gender sexual behaviour and/or identifying as LGBT are at higher risk for mental health disorders, including depression, anxiety, substance abuse, and suicide ideation and attempts (Cochran, 2001, 2003, 2007; Gilman et al., 2001; Sandfort, de Graaf, Bijl, & Schnabel, 2001; Balsam, *et al.*, 2005; Cochran and Mays, 2000; D'Augelli, 2002; Espelage, Aragon, Birkett, & Koenig, 2008). Such mental health disparities are likely to have detrimental consequences for the quality of life of these LGBT population in the later years (Wallace, Cochran, Durazo, Ford, 2011; Fried, and Guralnik, 1997; Fredriksen-Goldsen et al, 2011).

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**Table 2.** Mean, standard deviation and the p-values of one-way ANOVA of the mental health disparities of LGBTs

| **Mental health conditions** | **Sexual Orientation** | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | ***Lesbian*** | | ***Gay*** | | ***Bisexual*** | | ***Transgender*** | | ***Total*** | | |
| | M | SD | M | SD | M | SD | M | SD | M | SD | p-value |
| Somatization | .90 | 0.60 | 1.0 | 0.70 | 1.3 | .79 | 0.7 | 0.99 | 1.1 | 0.75 | .000 |
| Depression | .80 | 0.68 | 1.0 | 0.75 | 1.2 | .72 | 0.6 | 0.85 | 1.0 | 0.74 | .000 |
| Anxiety | 1.2 | 0.70 | 1.1 | 0.83 | 1.3 | .89 | 0.6 | 0.31 | 1.2 | 0.84 | .000 |
| GSI | 1.0 | 0.50 | 1.0 | 0.67 | 1.3 | .72 | 0.6 | 0.51 | 1.1 | 0.68 | .000 |

**Table 3.** Mean, standard deviation and the p-values of one–way ANOVA of the behavioral health disparities among the LGBTs

| **Behavioural health disparities** | **Sexual Orientation** | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | ***Lesbian*** | | ***Gay*** | | ***Bisexual*** | | ***Transgender*** | | ***Total*** | | |
| | M | SD | M | SD | M | SD | M | SD | M | SD | p-value |
| Excessive use of cigarette or tobacco | 2.3 | 1.15 | 1.8 | 1.15 | 1.58 | 1.14 | 1.5 | .71 | 1.8 | 1.2 | .000 |
| Over-use of alcohol most of the time | 2.3 | 1.13 | 1.8 | 1.18 | 1.56 | 1.05 | 1.0 | - | 1.8 | 1.1 | .000 |
| Use of drugs (such as cocaine, heroin) | 1.9 | 1.00 | 1.7 | 1.02 | 1.44 | 0.96 | 1.5 | .71 | 1.6 | 1.0 | .003 |
| Engage in unprotected sexual behaviours | 3.4 | 1.41 | 2.8 | 1.32 | 2.54 | 1.14 | 2.0 | 1.41 | 2.8 | 1.3 | .000 |

The results of the study show that there are behavioral health disparities among the LGBT population in Ghana. Lesbians and gay are found to engage in excessive use of tobacco, over-use of alcohol most of the time, use of drugs, such as cocaine or heroin, and also engage in unprotected sex behaviours more than their bisexual and transgender counterparts. These behaviours of the LGBTs may be linked to the discriminations and abuses faced by the LGBTs (Fredriksen-Goldsen et al, 2012; D'Augelli, Grossman, 2001; Fredriksen-Goldsen, Kim, Muraco, Mincer, 2009). This result of the study is in support of literature. It is found that gay, and bisexual are at increased risk of sexually transmitted infections (STI) such as syphilis, gonorrhea, chlamydia, human papillomavirus, and hepatitis A and B, other than HIV as a result of unprotected sexual behaviours (Rosenzweig et al., 2011). Lesbian and bisexual women are also found to be more likely to be obese and to use tobacco and alcohol than heterosexual women (Osuna et al., 2011); and gay, and lesbian have higher rates of tobacco and alcohol use, unhealthy weight control, and risky sexual behaviors than their straight peers (Shin & Lukens, 2002). LGBT people are at greater risk of suicide and suicidal thoughts· mood disorders and anxiety, eating disorders, alcohol, tobacco, and substance abuse (Grant et. al, 2011).

**Table 4.** Mean, standard deviation and the p-values of one–way ANOVA of the physical health disparities among the LGBTs

| **Physical health disparities** | **Sexual Orientation** | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | ***Lesbian*** | | ***Gay*** | | ***Bisexual*** | | ***Transgender*** | | ***Total*** | | |
| | M | SD | M | SD | M | SD | M | SD | M | SD | p-value |
| Risk of cancer | 1.7 | 0.93 | 1.6 | 0.94 | 1.47 | 1.01 | 1.0 | - | 1.6 | 1.0 | .162 |
| Overweight or obese | 2.3 | 1.05 | 1.8 | 1.03 | 1.54 | 1.05 | 1.5 | .71 | 1.8 | 1.1 | .000 |
| Diagnosed with HIV/AIDS | 2.4 | 1.18 | 2.4 | 1.14 | 2.47 | 1.08 | 1.0 | - | 2.4 | 1.1 | .588 |
| Diagnosed with the risk of stroke | 2.1 | 1.03 | 1.9 | 1.10 | 1.50 | 1.00 | 1.0 | - | 1.7 | 1.1 | .000 |

The results of the study indicated that there are also differentials in the physical health conditions of the LGBT population in Ghana. The findings of the study revealed that the lesbians and the gays in Ghana have higher risks of cancer, being overweight or obese, and the risk of being diagnosed with stroke. Meanwhile, the results of the study indicated that bisexuals in Ghana have the risk of being diagnosed with HIV/AIDs more than the lesbians and the gays. One possible explanation for this finding is that bisexuals are found to multiple sex partners, and as such could easily get infected and also transmit the HIV virus (Fredriksen-Goldsen et al., 2013). The cause of these health disparities, according to a human right watch report, is the law that contributes to a climate in which violence and discrimination against LGBT people is common (Human Right Watch, 2018). This result is consistent with previous literature. More recent research in investigating the physical health of LGBT people outside Ghana revealed that, relative to heterosexuals, LGBT populations have higher rates of disability (Wallace et al., 2011), more physical limitations (Conron et al., 2010; Dilley et al., 2010), and poorer general health (Conron et al., 2010; Wallace et al., 2011). Elevated rates of HIV are also observed among gay and bisexual men (Centers for Disease Control and Prevention, 2013) and transgender women (Herbst et al., 2008; Schulden et al., 2008). Among lesbian and bisexual women, there are higher rates of overweight and obesity (Boehmer, Bowen, & Bauer, 2007; Case et al., 2004; Dilley et al., 2010). Some studies have also indicated LGB adults may be at elevated risk of some cancers (Case et al., 2004; Dibble, Roberts, & Nussey, 2004; Valanis et al., 2000) and cardiovascular disease (Case et al., 2004; Fredriksen-Goldsen, Kim et al., 2013; Hatzenbuehler, McLaughlin, & Slopen, 2013). Large population-based studies have found that LGB adults are more likely to report diagnoses of asthma than their heterosexual counterparts (Conron, Mimiaga, & Landers, 2010; Dilley et al., 2010).

## Conclusion

Ghanaians who are lesbian, gay, bisexual, or transgender suffer widespread discrimination and abuse both in public and in family settings. These marginalization and discrimination experienced by the LGBT people have contributed to barriers to the access of health and support services (Leonard, 2002; McNair, Anderson, Mitchell, 2003). The findings of this study document population-based health disparities among LGBT population in Ghana. Early detection and identification of factors associated with such at-risk groups will enable public health initiatives to expand the reach of strategies and interventions to promote healthy communities in Ghana. It is imperative that policy makers, stakeholders, family members, health care professionals and the general public understand the health needs of these individuals so as to develop effective preventive interventions and services tailored to their unique needs. LGBT population in Ghana experience a number of health disparities, ranging from behavioural, physical and mental health. Discrimination and abuses have been found to be

contributory factor these health disparities among the LGBTs population in Ghana. On the other hand, the laws of Ghana, which criminalizes LGBTs contributes to an atmosphere in which violence and discrimination against LGBT people is common. It is therefore recommended that the law that criminalizes LGBTs in Ghana should as a matter of urgency be abolished to provide a serene atmosphere to alleviate the harassment, stigmatization and discrimination against the LGBTs in the country. The findings of the study revealed that the LGBT community in LGBT have poor mental health problems. As matter of urgency, mental health care attention should be paid to these individuals to deal with their mental health issues. If not, in due time, Ghana will have an adult population with serious mental health problems. When this happen, the country will experience serious economic mishaps. One of the limitations of this study is the fact that the physical and the behavioural health conditions of the LGBTs was measured by the use of a questionnaire developed by the author. Although reliability and validity measures were observed, measuring the health status of the LGBTs through the use the questionnaire required the LGBTs to provide their response to the questionnaire. This approach comes with limitations as LGBTs may not provide a candid response to the questions. For instance, asking an LGBT to indicate whether he/she has been diagnosed with HIV/AIDs will not yield a candid response from them. Hence, a new methodological approach in subsequent studies should be used whenever the health status of an LGBT is being measured. The health condition could be measured by testing medically, or by the use of a medical instrument.

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